October 11, 2017-2014

County of San Bernardino Planning Division 15900 Smoke Tree St. Suite 131 Hesperia, CA 92345

Subject: APN 0351-141-17 Preliminary Drainage Report

APN 0351-191-17 is located in the County of San Bernardino, California, South of 7th Street, in between Middleton Road and Barbet Road. APN 0351-191-17 is a 10 acre vacant land site, and is proposed to subdivided into four parcels. The natural terrain of the parcel flows in Northerly direction at a slope of approximately 2.5%.

Offsite tributary area from the South was quantified (see attached exhibit) and found to be approximately 33 Acres. Typical studies of undeveloped land in the High Desert region show runoff of approximately 1 cfs per acre can be expected, this results in approximately 33 cfs of expected tributary flows. Currently Del Rosa Road serves and an interceptor of offsite drainage, and it is anticipated that as future development occurs to the South, the runoff will be conveyed to Middleton Road and Barbet Road. The current development plan consists of large lot single family dwellings. Any future pads must be graded and set at an elevation that will protect them from offsite water. Offsite flows can be safely transmitted through this type of development. Care needs to be taken not to block or concentrate flows.

Ultimately, the runoff produced from the site, and the runoff tributary to the site flows to the Mojave River. A Hydrology Exhibit accompanies this discussion to further illustrate the tributary area and direction of flow.

No. 36052

If you have any questions, please feel free to contact me.

Sincerely,

Raymond J. Allard, P.E.

Rayl & allowel

Principal

Allard Engineering (909) 356-1815

MAY 1994

HYDROLOGY EXHIBIT LEGEND 1"=1000" SITE FLOW DIRECTION Prepared By: - RIDGE LINE ALLAHD ENGINEERING A1=16 AC Civil Engineering - Land Surveying - Land Planning 16866 Saville Avenue Fontana, California 92335 - AREA (ACRES) (909) 356-1815 Fax (909) 356-1795 - WATERSHED (NUMBER) OCTOBER 11, 2014 3815 T. 5 N. T. 4 N. 3814 71H STREET A₁=33.2 AC DEL ROSA ROAD 3000 3813 27'30" Yucca Forest